

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for radio RF resources allocation in multi-standard wireless communication systems, comprising:

(a) detecting a plurality of received signals transmitted from an uplink device, wherein said signals contain information on the types of the different wireless communication schemes which are requested to access; and

(b) allocating the radio RF resources shared by said different communications schemes according to a selection selected from ~~a group consisting of~~ (a) a statistical configuration method of said radio RF resources based on a number of requests, previously recorded in memory or detected in real-time by a status detector, for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said whole interval, and (b) a type of wireless communication scheme.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) The method of claim 1, wherein the traffic ratio is realized by calculating a ratio of the number of the requests for accessing each of said different wireless communication schemes.

5. (Cancelled)

6. (Cancelled)

7. (Original) The method of claim 1, wherein step (b) further includes:

(b2) judging whether there are RF resources available for the requests for accessing said different wireless communication schemes; and

(b3) allocating said available RF resources to said requests, if there are RF resources available for said requests.

8. (Original) The method of claim 1, wherein step (b) further includes:

(b1) pre-allocating said RF resources to a specific communication scheme;

(b2) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different wireless communication schemes are not the specific communication scheme; and

(b3) allocating said available RF resources to said requests, if there are RF resources available for said requests.

9. (Original) The method of claim 7, wherein step (b2) and (b3) are executed in following condition:

subscribers send said connection requests for accessing said different wireless communication schemes.

10. (Original) The method of claim 7, wherein step (b2) and (b3) are executed in following condition:

subscribers which carry out cell handover send said handover requests for accessing said different wireless communication schemes.

11. (Original) The method of claim 7, wherein step (b3) further includes:

(i) judging whether there are RF carrier available for said requests, if there are no RF resources available for said requests for accessing said wireless communication schemes; and

(ii) allocating said available RF carrier to said wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests.

12. (Original) The method of claim 11, wherein step (ii) further includes:

when the communications employing said wireless communication schemes ends, said RF carriers allocated to said requests are released.

13. (Original) The method of claim 11, wherein step (ii) further includes: if there are no RF carriers available for said requests, said requests are rejected.

14. (Original) The method of claim 1, said wireless communication schemes include at least two of following: IS-95, CDMA, GSM, TSM, GPRS, TD-SCDMA, W-CDMA cdma 2000 and WLAN.

15. (Currently Amended) A device for RF resources allocation in multi-standard wireless communication systems, comprising:

a status detector, detecting a plurality of received signals transmitted from an uplink device, wherein said signals contain information on the types of the different wireless communication schemes which are requested to access; and

a resource allocator for allocating the radio RF resources shared by said different communications schemes according to a selection selected from ~~a group consisting of~~ (a) a statistical configuration method of said radio RF resources based on a number of requests, previously recorded in memory or detected in real-time by a status detector, for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said whole interval, and (b) a type of wireless communication scheme.

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) The device of claim 15, wherein the traffic ratio is realized in accordance with said RF resources allocation by calculating a ratio of the number of the requests for accessing each of said different wireless communication schemes.

19. (Cancelled)

20. (Cancelled)

21. (Original) The device of claim 15, wherein said RF resources allocation executed by said resource allocator includes:

(b) judging whether there are RF resources available for the requests for accessing said different wireless communication schemes; and

(c) allocating said available RF resources to said requests, if there are RF resources available for said requests.

22. (Original) The device of claim 15, wherein said RF resources allocation executed by said resource allocator includes:

(a) pre-allocating said RF resources to a specific communication scheme;

(b) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different wireless communication schemes are not the specific communication scheme; and

(c) allocating said available RF resources to said requests, if there are RF resources available for said requests.

23. (Original) The device of claim 21, wherein step (b) and (c) are executed in following condition:

subscribers send said connection requests for accessing the different wireless communication schemes.

24. (Original) The device of claim 21, wherein step (b) and (c) are executed in following condition:

subscribers which carry out cell handover send said handover requests for accessing the different wireless communication schemes.

25. (Original) The device of claim 21, wherein said RF resources allocation executed by said resource allocator includes:

judging whether there are RF carriers available for said requests for accessing the different wireless communication schemes, if there are no RF resources available for said requests; and

allocating said available RF carriers to the different wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests.

26. (Original) The device of claim 25, wherein said RF resources allocation executed by said resource allocator includes:

when the communications employing said different wireless communication schemes end, said RF carriers allocated to said requests are released.

27. (Original) The device of claim 25, wherein said RF resources allocation executed by said resources allocator includes:

if there are no RF carriers available for said requests, said requests are rejected.

28. (Original) The device of claim 15, said different wireless communication schemes include at least two of following:

IS-95, CDMA, GSM, TSM, GPRS, TD-SCDMA, W-CDMA, cdma 2000 and WLAN.

29. (Currently Amended) A wireless communication system, comprising:

a plurality of transceivers, receiving and transmitting RF signals;

a plurality of RF processing units, processing said received signals or signals to be transmitted by said transceivers;

RF resources allocator, detecting the information contained in received signals transmitted from an uplink device on the types of the different wireless communication schemes which are requested to access, and

allocating the radio RF resources shared by said different communications schemes according to a selection selected from ~~a group consisting of~~ (a) a statistical configuration method of said RF radio resources based on a number of requests, previously recorded in memory or detected in real-time by a status detector, for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said whole interval, and (b) a type of wireless communication scheme.

30. (Cancelled)

31. (Cancelled)

32. (Previously Presented) The system of claim 29, wherein the traffic ratio is realized in accordance with said RF resources allocation by calculating the ratio of the number of the requests for accessing each of said different wireless communication schemes.

33. (Cancelled)

34. (Cancelled)

35. (Original) The system of claim 29, wherein said RF resources allocation executed by said RF resources allocator includes:

(b) judging whether there are RF resources available for the requests for accessing said different wireless communication schemes; and

(c) allocating said available RF resources to said requests, if there are RF resources available for said requests.

36. (Previously Presented) The system of claim 29, wherein said RF resources allocation executed by said RF resources allocator includes:

(a) pre-allocating said RF resources to a specific communication scheme;

(b) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different wireless communication schemes are not the specific communication scheme; and

(c) allocating said available RF resources to said requests, if there are RF resources available for said requests.

37. (Original) The system of claim 35, wherein step (b) and (c) are executed in following condition:

subscribers send said connection requests for accessing the different wireless communication schemes.

38. (Original) The system of claim 35, wherein step (b) and (c) are executed in following condition:

subscribers which carry out cell handover send said handover requests for accessing the different wireless communication schemes.

39. (Original) The system of claim 35, wherein said RF resources allocation executed by said RF resources allocator includes:

judging whether there are RF carriers available for said requests for accessing the different wireless communication schemes, if there are no RF resources available for said requests; and

allocating said available RF carriers to the different wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests.

40. (Original) The system of claim 39, wherein said RF resources allocation executed by said RF resources allocator includes:

when the communications employing said different wireless communication schemes end, said RF carriers allocated to said requests are released.

41. (Original) The system of claim 39, wherein said RF resources allocation executed by said RF resources allocator includes:

if there are no RF carriers available for said requests, said requests are rejected.

42. (Original) The system of claim 39, said different wireless communication schemes include at least two of following:

IS-95, CDMA, GSM, TSM, GPRS, TD-SCDMA, W-CDMA, cdma 2000 and WLAN.